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VU, TUAN A				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,643

**Applicant(s)**

HUTTUNEN, SAMPO

**Examiner**

TUAN A. VU

**Art Unit**

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 20 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/GS-08)  
Paper No(s)/Mail Date 9/14/06

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

DETAILED ACTION

1. This action is responsive to the application filed 9/16/2006.

Claims 1-17 have been submitted for examination.

*Claim Objections*

2. Claims 1-17 are objected to because of the following informalities: The numerals expressed within parentheses – e.g. (118) -- are not required for a US Application claim language and would induce confusion if not removed. Appropriate correction is not required but highly recommended.

*Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 10-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. The following link on the World Wide Web is the United States Patent And Trademark Office (USPTO) reference in terms of guidelines on a proper analysis on 35 U.S.C. §101 rejection.

[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)

Specifically, claim 10 recites means operating a JVM and establishing connection between a M2M and a server, means configured to download, communicate by the application and set the parameters by the application. As construed from the Specifications, means for

running a JVM and to establish connection are implemented in software (e.g. built upon J2ME and secure mechanism using MIDP); whereas the act to download is not taught as being performed via any form of hardware. The steps recited as "communicate with the server" and "set the parameters ..." are construed as done by a downloaded application. In all, the M2M module claim amounts to software functionality with absence of supporting HW, and is treated as mere 'Functional Descriptive Material' or listing of software per se. Claims 11-17 fail to remedy to the lack of hardware support as set forth in claim 10.

According the 35 USC § 101, 'Functional Descriptive Material' (see 101 Guidelines, Annex IV, pg. 52-54) cannot be construed as belonging to any statutory category of subject matter, and further more, absent any hardware support no data transformation in order in order to yield real-world result consistent with a required tangible utility is deemed possible. Claims 10-17 are rejected for constituting what appears to be a non-statutory subject matter.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 6-11, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nokia Corp, "Product Guide for Nokia M2M Application Development Kit", copyright 2002, pp. 1-15 (herein NokiaADK – provided in Applicants' IDS 9/14/06), in view of Nokia30, "Nokia 30 GSM Connectivity Terminal User's guide for modem use", Copyright 2002, pp. 1-56 (herein

Nokia30) in view of Ims, USPN: 6,542,908 (herein Ims) and APA (Admitted Prior Art: Background: pg. 1).

**As per claim 1**, NokiaADK discloses method of configuring parameters of an M2M (machine-to-machine) module, the method comprising establishing a connection between the M2M module and a server (Fig. 1 pg. 3), characterized by the method comprising:

an application having an interface for configuring the M2M module (IDL, stub, ORB - );  
communicating by the application for receiving configuration parameters (names – top pg. 13; parameters settings – sec 6 pg. 11 – Note: use of parameters to establish connection to the GW reads on receiving parameters); and

setting the parameters of the M2M module by the application based on the received configuration parameters ( GSM WAP parameter settings – see above).

NokiaADK does not explicitly disclose downloading the application to the M2M module, nor does NokiaADK explicitly disclose application configured to run on a JVM. NokiaADK discloses a kit configured for a Nokia 30 terminal (sec 2.2.2) with interfaces to a M2M gateway (Fig. 4 pg. 6), where a kit includes configurator SW (sec 6 pg. 11), an "evaluation module" that interfaces with tracing and SW downloading -- downloading remote end SW into said evaluation module (sec 4.1.3 pg. 7), said evaluation module for controlling server end though the M2M gateway and the GSM connectivity Terminal (sec 7.1 pg. 11), including Corba messaging (sec 4.1 pg. 7); wherein the M2M interface offers open interface to developers for these to control terminal application (sec 4.1.1 pg. 7; customer's own applications – sec 7 pg. 11); wherein the evaluation module SW written in source code can be ported for specific operating system (sec 4.2 pg. 8), and application for ORB are modules provided from

developer's choice (sec. 4.2.1 pg. 9), where requirement for the M2M gateway featured in the kit includes Java 2 edition (sec 5.2 pg. 10) to support the server/control aspect of the evaluation module (sec 7.1 pg. 12 top) and where ORB stubs and code are supported by a IDL compiler (Fig. 6, pg. 14). Consistent with NokiaADK's downloading of installation SW (NokiaADK: can be downloaded - Fig. 7 pg. 15) or of applications from external source (e.g. developer's code) into the "evaluation module" to control terminal end connectivity and ORB communication as set forth above, **Nokia30** discloses download and install drivers or "Configurator Software" for the Nokia 30 software functionality (Nokia30: pg. 22; downloaded – pag. 45); whereas intertwining relation between Java code used in Corba-based applications or connectivity stubs as in NokiaADK is disclosed in **Ims** as a well-known concept, where a *Java Virtual machine* supports method calls of applets, RMI, proxy (Corba, applet, RMI, proxy - col. 2 lines 15-64). It would have been obvious for one of ordinary skill in the art to implement the M2M module in NokiaADK using control software via configuration software from download as taught in Nokia30, and that such application would be in a Java source form (Java Platform edition 2), to be compiled to handle Corba messaging and remote invocation as in the M2M gateway approach, and run in a JVM as taught in Ims, because source code has to be adapted for specific control functionality as seen fit by a external developer (as per NokiaADK and Nokia30), requiring download via a interface or via a NW site, and that applet/proxy written to associate Corba-based communication call/message require a JVM by virtue of well-known methodology – as in Ims -- that associates Java with Corba middleware mode of operations.

Nor does NokiaADK explicitly disclose communication using the application with a server to receive configuration parameters.

NokiaADK discloses Corba naming service lookup using SMS methodology for delivery based on message acknowledgment (sec 5.1 pg. 10) where WAP parameter settings are performed by a Configurator SW (sec 6 pg. 11) and where the server end (supported by the Java control application portion of the Emulation module – pg. 12, top) queries list of objects that are registered to the broker of the terminal, such that the M2M kit uses IDL (sec 9 pg. 13-14) to support embedded application development based on the SMS process initiated at the terminal applications (sec 7.3, pg. 12). Sending SMS to receive from a server through a GSM gateway to a M2M module is disclosed in APA (Specifications: pg. 1). Consistent with the lookup for data registration pertinent to the terminal end in response to messaging, **Nokia30** discloses software for connectivity and messaging in terms of security services (Nokia30: additional services - pg. 11) or hyperTerminal program to establish SIM card authentication via a remote link setting (Nokia30: pg. 17). Parameters receiving to establish proxy and needed bean application using passed parameters from a server is further disclosed in **Ims** (see Ims: Fig. 4-6). In view of the data sent from server in Corba method calls (see Nokia30: pg 49) and the Corba lookup service as in NokiaADK and the parameters passing in Ims, it would have been obvious for one of ordinary skill in the art to implement the connectivity between terminal applications at the M2M client end applications and the remote Corba entities so that terminal end profile data or registration data, or configuration parameters – as in APA - needed for the user connectivity or WAP applications are received from a server as taught in the SIM security remote authentication by Nokia30, in Corba's server in Ims, or by the ORB look up approach by NokiaADK, because a wireless platform implemented via a gateway within a Corba based messaging scheme, has to recourse to a service and lookup service (e.g. to retrieve configuration parameters) or a remote

parameter provision as in Ims, in order for a authorized and authenticated client end – as in APA  
- request to be properly secured prior to receiving further resources, or to develop client  
application (as in Ims) and also as shown in NokiaADK (sec 6 pg. 11).

**As per claim 2**, NokiaADK discloses connection between the M2M module and the server is established through a M2M gateway (Figure 1 pg. 3) or over a TCP/IP connection.

**As per claim 3**, NokiaADK discloses communicating with the server comprises: requesting configuration parameters from the server and receiving , in the application, the configuration parameters from the server (refer to rationale set forth in claim 1)

**As per claim 6**, NokiaADK discloses application being downloaded (refer to claim 1 rationale – see Nokia30: pg. 22, 45) to the M2M module over a cable (NokiaADK: sec 4.1.4, pg. 8; D9 connector ... downloading – sec 4.1.1, 4.1.3 pg. 7; see Nokia30), over an infrared connection or over-the-air (OTA)

**As per claims 7-9**, NokiaADK discloses the application programming interface being a Common Object Request Broker Architecture (CORBA) API;

using the M2M module (110) for configuring parameters of a remote device based on the configuration parameters (refer to claim 3) received from the server.

NokiaADK does not explicitly disclose *communicating with the server by making a method call through the CORBA API*

However NokiaADK disclose corba messaging to instantiating functions via use of IDL (sec 7.3 pg. 12; stubs – Fig. 6), the Corba broker disclosed as discovering ORB remote objects (sec 7.2→ 7.4, pg. 13) with IDLs to control the terminal and construed as terminal application in terms method calls (sec 2.1 pg. 2) using a IDL compiler implemented via the verification of

ORB SW module (sec 4.2 pg. 8-9). Based on the use of Corba to effectuate proxy and generating remote calls via returned parameters from server (see Ims: Fig. 4-6) based on Ims, it would have been obvious for one of ordinary skill in the art to implement NokiaADK's mobile application framework for ORB-based with IDL compiler to effectuate method calls via a Corba broker, so that the compiler would uses IDL to effectuate method call of a Corba API as shown in Ims, because parameter passing from a broker can help a registered mobile client to establish the proper call leading to connectivity and obtaining of resources as set forth in NokiaADK, via use of middleware to support the resource-restraint aspect of mobile applications.

**As per claim 10**, NokiaADK discloses M2M (machine-to-machine) module, comprising: means for:

operating a Java virtual machine (refer to claim 1 rationale) and means for establishing a connection between the M2M module and a server, characterized by the M2M module being configured to:

download an application having an application programming interface (API) for configuring the M2M module (refer to claim 1 rationale), the application being configured to run on a Java virtual machine (JVM – refer to claim 1); communicate with the server by the application for receiving configuration parameters; and set the parameters of the M2M module by the application based on the received configuration parameters; all of which having been addressed in claim 1, in view of Nokia30, Ims, and APA.

**As per claims 11, 14-17** refer to claims 3, 6-9 respectively.

7. Claims 4-5, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nokia Corp, "Product Guide for Nokia M2M Application Development Kit", copyright 2002, pp. 1-15

(herein NokiaADK), in view of Nokia30, "Nokia 30 GSM Connectivity Terminal User's guide for modem use", Copyright 2002, pp. 1-56 (herein Nokia30); Ims, USPN: 6,542,908 (herein Ims), and APA (Admitted Prior Art: Background: pg. 1); further in view of Le et al, USPubN:2003/0233465 (herein Le)

**As per claims 4-5**, NokiaADK does not explicitly disclose application being a Java 2 Micro Edition (J2ME.TM.) application; the application being a Java MIDlet or a Java IMlet.

NokiaADK discloses mobile communication GSM and Java-platform (refer to claim 1 in view of Ims's JVM) to implement the "evaluation software" that control end-to-end terminal communication SW and tracing functionality (sec 4.2 pg. 8; sec 4 pg. 6-7) where SW module to implement ORB or wrappers has limited storage capacity (sec 4.2.1 → 4.2.3 pg. 9). The mobile device/platform version for embedded Java application is disclosed as J2ME, and this is utilized in Le. Le discloses use of J2ME and its well-known support for MIDP profile (para 0008 - pg. 1) pertinent to Java-enabled mobile application/computing to implement RMI and message processing via a web ORB server (Le: *applet, EJB, midlet* - para 0018-0027; MIDP – para 0028) handling applet, EJB components, Midlet for ORB clients using Corba, security infrastructure. It would have been obvious for one of ordinary skill in the art to implement the mobile M2M gateway and configuration aspect of the Evaluation software in NokiaADK so that this control software, in light of the SMS, and connectivity parameter settings set forth in use of Corba/ORB, so that the software is implemented as a J2ME application destined for capacity-restrained mobile devices as taught in NokiaADK, including application software expressed in MIDlet, because this would utilize less resources of the client mobile and would also support security compliancy based on the well-known MIDP as set forth in Le (e.g. para 0025, 0028, 0034),

based on the registration of client users via ORB look up services or authentication as taught in Nokia30.

**As per claims 12-13** refer to claims 4-5 respectively.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Tuan A Vu/

Primary Examiner, Art Unit 2193

October 20, 2010